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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,011	02/04/2004	Kenneth J. Schlager	060346-0003	5332
20572	7590	08/12/2005	EXAMINER	
GODFREY & KAHN S.C. 780 NORTH WATER STREET MILWAUKEE, WI 53202			PHASGE, ARUN S	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,011

Applicant(s)

SCHLAGER ET AL.

Examiner

Arun S. Phasge

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 January 1953.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 5, 6, 26, 27, 29-34, 36-45 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims are objected because the apparatus claims recited the intended use, results obtained by the use of the structure or other functional recitation, which fails to further limit the structure of the apparatus claims.

Claim Rejections - 35 USC § 112

Claims 5 and 6 recite the limitation "said ionic current" in line two of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 is rejected for the use of a trademark. The relationship between a trademark and the product it identifies is sometimes indefinite, uncertain and arbitrary. The formula or characteristics of the product may change from time to time and yet it may continue to be sold under the same trademark. In patent specifications every element or ingredient of the product should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what

is meant. Arbitrary trademarks, which are liable to mean different things at the pleasure of manufacturers, do not constitute such language. *Ex Parte Kattwinkle*, 12 USPQ 11 (Bd. Apps. 1931). See MPEP 608.01(v).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,780,306 in view of Woodbridge, U.S. Patent 6,203,710.

The prior patent is fully encompassing the claims of the present application. The claims however, do not disclose the use of the electromagnetic field as claimed. The Woodbridge patent is cited to show that the use of the electric field

with the electromagnetic field produces synergistic results in the treatment of water (see col. 2, lines 9-34).

Therefore, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the claims of the prior patent, because the Woodbridge patent teaches that the use of the electric and electromagnetic fields allows the synergistic treatment of water.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-7, 13, 14, 23, 26-27, 35-45, 49-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Woodbridge, U.S. Patent 6,203,710.

Woodbridge discloses the claimed method and apparatus for the electroionic treatment of water comprising an AC power source coupled to a flow cell and a variable electromagnet to create an electromagnetic field around said flow cell, wherein the aqueous solutions pass through said flow cell (see figure 1, abstract

and col. 3, lines 35-46). The reference further discloses the formation of peroxide and hydroxyl radicals by the electric field (see col. 2, lines 1-20).

Therefore, since the Woodbridge discloses each and every limitation of the claims, the claims are rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 3, 15-25, 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodbridge as applied to claims above, and further in view of Pitts, Jr et al. (Pitts), patent application publication US 2002/0056634.

The Woodbridge patent does not disclose that the flow cell is inductively, capacitively or resistively coupled, such as the claimed LCR circuit. The Pitts patent is cited to show the use of such an electrostatic process, wherein the electrodes are capacitively coupled to reduced the deposits in membrane separation systems (see abstract and claims 1-25).

The invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Woodbridge patent with the teachings of the Pitts reference, because the Pitts reference teaches the use of the capacitively coupled circuit to treat the water flowing through the cell to prevent the formation of biofilm deposits.

Claims 8-12, 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodbridge as applied to claims above, and further in view of Wagner et al., (Wagner), article entitled, Disinfection of Wastewater by Hydrogen Peroxide or Peracetic Acid: Development of Procedures for Measurement of

Residual Disinfectant and Application to a Physicochemically Treated Municipal Effluent.

The Woodbridge patent does not disclose the use of monitoring to obtain the treated water having reduced contaminants. The Wagner article is cited to show the routine use of measurements and control of the addition of the oxidants, which would reduce the contaminants in water as, claimed (see pages 39-45). Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Woodbridge patent, because the Wagner reference discloses the means, such as the claimed monitor to control the treatment of the water is routinely used in the art to provide efficient treatment of water.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Arun Phasge'. The signature is fluid and cursive, with the first name 'Arun' and last name 'Phasge' clearly distinguishable.

Arun S. Phasge
Primary Examiner
Art Unit 1753

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